

REZANOV, I.A.

Geological interpretation of data of deep seismic sounding. Sov.  
geol. 3 no.6:65-77 Je '60. (MIRA 13:11)

1. Institut fiziki Zemli AN SSSR.  
(Seismic prospecting)

PETRUSHEVSKIY, B.A.; ~~REZNIKOV, I.A.~~

Some characteristics of recent tectonic movements in the Verkhoyansk-Kolyma area. Dokl.AN SSSR 133 no.5:1173-1175 Ag '60.

(MIRA 13:8)

1. Institut fiziki Zemli im. O.Yu. Shmidta Akademii nauk SSSR.  
Predstavleno akad. I.P. Gerasimovym.

(Siberia, Eastern--Geology, Structural)

S/011/61/000/005/003/003  
A051/A129

AUTHOR: Rezanov, I. A.

TITLE: Conference on deep seismic sounding of the Earth's crust

PERIODICAL: Akademiya nauk SSSR, Izvestiya, Seriya Geologicheskaya, no. 5, 1961,  
119 - 122

TEXT: The conference took place on November 14 - 19, 1960, in Moscow Institut fiziki Zemli AN SSSR (Institute of the Physics of the Earth of the AS USSR). The conference was organized by the mentioned Institute, the Council of geophysical prospecting at the AS USSR presidium and by the Geophysical Department of the Ministry of Geology and Protection of Natural Resources of the USSR. The work of 10 years performed by deep seismic sounding in the Soviet Union was summarized, and most of the papers were presented by the Institute of the Physics of the Earth and by the VNIIGeofizika at the Ministry of Geology and Protection of Natural Resources of the USSR. The purpose of the conference was the discussion of the recording methods of the deep waves, determining their nature, interpretation of obtained data and selecting the most useful plan of work. V. V. Belousov presented a paper on the significance of deep seismic sounding in order to solve theoretical and

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practical geological problems. Several papers dealt with the data of strata and columns were demonstrated for the distribution of velocities of the seismic waves in the crust. A. V. Yegorkin reported on the results of a study of the structure of the earth's crust in the south-eastern platform of Russia. I. V. Pomerantsev and M. V. Margot'yev suggested another interpretation of the obtained wave picture, which was previously considered to be the leading refracted waves according to the kinematic and dynamic features. They considered these waves to originate in the gradient medium where their distribution velocity increases with depth. B. S. and I. S. Vol'vovskiy reported on the results of an investigation of the earth's crust in the region of the inter-mountainous Fergana Depression and the Bukhoro-Khiva zones. K. Ye. Fomenko submitted a thesis on work in the South-Eastern Turkmenia region along the section of the Tedzhen-Bayram-Ali-Karabekaul extending over 250 km. D. N. Kazanli and A. A. Popov discussed the results of a study in the Central Region of Kazakhstan along the Balkhash-Petropavlovsk section extending for 1,000 km, and along the section in the Dzhezhgagan region. I. V. Litvinenko reported on the results of deep seismic sounding within the area of the Baltic shield. The results of work in Azerbaydzhan SSR were reported on by B. D. Trebukov. Ya. B. Shvarts, on the results of sounding along the Maga-

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dan-Kolyma route, crossing over the region of the mesozoic folds of the north-eastern section in the USSR. The work was carried out by the North-Eastern Geological Department and by the Institute of the Physics of the Earth of AS USSR. I. P. Kosminskaya reported on the results of extensive research carried on in the transitional zone from the Asiatic continent to the Pacific Ocean. A. S. Alekseyev from the Matematicheskii institut (Mathematical Institute) of the AS USSR spoke on the kinematic and dynamic properties of the main deep waves in the case of certain theoretical standards of the earth's crust. The seismic investigations of the last few years have shown that there are many more layers in the earth's crust, than the traditionally accepted two-layer crust with "granite" and "basalt" layers. An analysis of the results of investigations of the last few years led Yu. N. Godin to the assumption that the entire crust including the "basalt" layer is composed of various metamorphic ores, formed from the first sedimentation and various large structural beds of different ages. A discussion held showed that new ideas of the structure of the earth's crust are about to be ushered in. The main problem facing the study of deep seismic sounding was thought to be the deciphering of seismic interfaces within the crust, even if this problem does require a high degree of detail and the methods have not as yet been fully developed. One of the other

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cover, lying below the Mohorovičić (Moho) divide. The conference made the following recommendations: to form a committee at the Ministry of Geology and Protection of Natural Resources for coordinating all the work of the USSR in the study of the earth's crust, both by seismic as well as other methods. It was recommended that this committee develop a plan for expanding deep seismic sounding for a period of 7 - 8 years. A special group should be created for compiling all the corresponding material, so that in the next few years it may be published with the title "Structure of the Earth's Crust of the USSR from Data Obtained by Deep Seismic Sounding". The group should conduct experimental-methodical work for improving the methods both on land and at sea. Finally it was recommended holding a special conference for the discussion of problems of geological interpretation of deep seismic sounding.

REZANOV, I.A.

Drift of continents; derived from paleomagnetic data. Sov.  
geol. 4 no.4:25-46 Ap '61. (MIRA 14:5)

1. Institut fiziki Zemli AN SSSR.  
(Magnetism—Secular variation)  
(Continents)

REZALOV, Igor' Aleksandrovich; KORZHOYEV, S.S., otv. red.

[Problems of the latest tectonics of the northeastern  
U.S.S.R.] Voprosy noveishei tektoniki Severo-Vostoka  
SSSR. Moskva, Nauka, 1964. 145 p. (MIRA 18:1)



REZANOV, I.A.

Congress on deep seismic sounding in earth's crust. Izv. AN SSSR.  
Ser. geol. 26 no.5:119-122 My '61. (MIRA 14:5)  
(Earth--Surface--Congresses)

REZANOV, I.A.; ZARUDNIY, N.N.; PETRUSHEVSKIY, B.A., otv. red.;  
GALUSHKO, Ya.A., red. izd-va; POLYAKOVA, T.V., tekhn. red.

[History of epeirogenic movements in the northeastern part of  
the U.S.S.R.] Istoriia kolebatel'nykh tektonicheskikh dvizhenii  
Severo-Vostoka SSSR. Moskva, Izd-vo Akad. nauk SSSR, 1962. 173 p.  
(MIRA 15:6)

(Soviet Far East--Earth movements)

REZANOV, I.A.

History of the development of the northeastern U.S.S.R. in the  
Riphean and Paleozoic. Izv.vys.ucheb.zav.; geol.i razv. no.2:  
9-27 F '62. (MIRA 15:3)

1. Institut fiziki Zemli AN SSSR.  
(Siberia, Eastern--Geology)

S/026/62/000/006/004/004  
D045/D114

AUTHOR: Rozanov, I.A., Candidate of Geological and Mineralogical  
Sciences

TITLE: Into the Earth's interior. The composition and origin of the  
basaltic layer of the Earth's crust

PERIODICAL: Priroda, no. 6, 1962, 84-91

TEXT: Theories on the composition and origin of the basaltic layer of the Earth's crust, based on results obtained using different conventional methods of studying this layer, are discussed. Laboratory methods, consisting in simulating conditions in the Earth's core and measuring the speed of movement of seismic waves, show that the basaltic layer may consist of eruptive, basic (gabbro) and metamorphic rocks. The deep seismic sounding method shows that it contains neither metamorphic nor magmatic rocks. Since the speed of movement of a seismic wave increases with depth, the author concludes that the basicity of the layer increases with depth. Hence, if it is

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3/026/62/000/006/004/004  
D045/D114

assumed that the basaltic layer is composed of gabbro rocks, intrusive rocks, in which the chemical composition would be a function of depth, should be found. Concerning continents, there is no evidence of basaltic rocks in the basaltic layer or in the lower part of the Earth's crust. In the near future, the deep seismic sounding method will also permit classifying the geological structure of the Earth's crust. Reference is made to a Soviet-developed project for drilling down to 12-18 km in various continental geotectonic regions in order to reach the basaltic layer and obtain data on the structure of several parts of the Earth's crust, each with a different geological history. Drilling to depths of 15-18 km, however, would still take 5-7 years. There are 7 figures.

ASSOCIATION: Institut fiziki Zemli im.O.Yu.Shmidt AN SSSR (Institute of Physics of the Earth im. O.Yu.Shmidt, AS USSR), Moscow.

REZANOV, I.A.

Crustal structure of platform areas. Biul.MOIP Otd.geol. 37  
no.1:25-42 Ja-F '62. (MIRA 15:2)  
(Earth--Surface)

ACC NR: AT0028369

(N)

SOURCE CODE: UR/0000/65/000/000/0045/0055

AUTHOR: Rezanov, I. A.

ORG: none

TITLE: Composition of deep-seated layers of the Earth's crust

SOURCE: International Geological Congress. 22d, New Delhi, 1964. *Geologicheskiye rezul'taty prikladnoy geofiziki* (Geological results of applied geophysics); doklady sovetskikh geologov, problema 2. Moscow. Izd-vo Nedra, 1965, 45-55

TOPIC TAGS: seismology, seismic velocity, metamorphism, refraction wave, reflection wave, seismicity, ~~deep~~ seismic sounding, earth crust, *petrology*

ABSTRACT: Analysis of recent data obtained from deep seismic sounding and laboratory measurements of seismic velocities in rocks under high pressure have lead the author to the conclusion that the Earth's crust is composed of metamorphic rocks down to the Mohorovicic discontinuity. High velocities in the lower layers of the crust are due to the combined effect of the following factors: 1) more basic primary composition of the Archean paragneisses established in all ancient platforms; 2) recrystallization of sedimentary rocks under long dynamic metamorphism resulting in the formation of denser minerals; 3) upward basification in the crust. Seismic discontinuities in the crust are considered to be boundaries between major structural stages which reflect the main geological periods. The suggestion that

ACC NR: AT6028369

these boundaries reflect the change in composition of rocks from stage to stage is confirmed by the fact that these boundaries are detected by both refraction and reflection head waves. The discontinuities in the crust limit zones several km thick. Various types of inhomogeneities found within these zones appear to be larger than those outside them. A progressive compaction of the crust, as manifested by a successive increase in boundary velocities, is observed in passing from geosynclines to young platforms, then to ancient platforms. The process of crustal "aging" is followed by the disappearance of distinct steeply dipping discontinuities and the appearance of almost horizontal seismic boundaries. Orig. art. has 3 figures.

SUB CODE: 08/ SUBM DATE: 06Jan65/ ORIG REF: 018/ OTH REF: 005



VYSOTSKIY, B.P.; REZANOV, I.A.; KIZEVAL'TER, D.S.

Reviews and discussions. Izv. AN SSSR. Ser.Geol. 30 no.4:130-146  
Ap '65. (MIRA 18:4)

1. Geologicheskiiy institut AN SSSR, Moskva (for Vysotskiy).
2. Institut fiziki Zemli AN SSSR, Moskva (for Rezanov).
3. Geologorazvedochnyy institut im. S.Ordzhonikidze, Moskva (for Kizeval'ter).

REZANOV, I.A.

"Kolyma Platform" in the northeast of the U.S.S.R. Izv. AN  
SSSR. Ser. geol. 29 no.11:36-44 N '64. (MIRA 17:12)

1. Institut fiziki Zemli AN SSSR, Moskva.

REZANOV, I.A.; ZARUDNYI, V.N.

Crustal structures in the northeastern U.S.S.R. Sov. geol. 8  
no.1:35-53 Ja '65. (MIRA 18:3)

1. Institut fiziki Zemli AN SSSR.

REZANOV, I.A.

Upper mantle and its effect on the earth's crust. Sov. geol. 6  
no.6:134-145 Je '63. (MIRA 16:7)

1. Institut fiziki Zemli im. O.Yu. Shmidta AN SSSR.  
(Earth--Surface)

REZANOV, I.A.; KOCHETKOV, V.M.

Recent tectonics and seismic regionalization of the northeastern part of the U.S.S.R. Izv.AN SSSR. Ser.geofiz. no.12:1673-1684 '62. (MIRA 16:2)

1. Institut fiziki Zemli, Sibirskoye otdeleniye AN SSSR, Yakutskiy filial.

(Siberia, Eastern—Geology, Structural)

(Siberia, Eastern—Seismology)

PETRUSHEVSKIY, B. A., geolog; BELOUSOV, V. V., geolog; GZOVSKIY, M. V., geolg;  
CORYACHEV, A. V., geolog; KIRILLOVA, I. V., geolog; KRESTNIKOV, V. N.,  
geolog; RASTVOROVA, V. A., geolog; REZANOV, I. A., geolog; SORSKIY,  
A. A., geolog.

Geologic principles of seismis division into districts. Studiia  
astron seismol 6 no.2:181-186 '61.

1. Institut fiziki Zemli AN SSSR.

S/270/63/000/001/021/024  
A001/A101

AUTHOR: Rezanov, I. A.

TITLE: On the structure of the Earth's crust in platform regions

PERIODICAL: Referativnyy zhurnal, Geodeziya, no. 1, 1963, 39 - 40, abstract  
1.52.259 ("Byul. Mosk. o-va ispyt. prirody. Otd. geol.", 1962,  
v. 37, no. 1, 25 - 42, English summary)

TEXT: The author analyzed the latest data of deep seismic probing and of laboratory measurements of propagation velocities of seismic waves in rocks under high pressure. As a result he has drawn the conclusion that the Earth's crust is built up throughout its entire thickness (down to the Mohorovicic boundary) by metamorphic rocks. The seismic boundaries within the Earth's crust are conceived by the author as structural surfaces (surfaces of discordances) separating structural formations of different ages. Ancient platforms are characterized, in distinction from young ones (epi-Paleozoic), by a denser crust and, possibly, they are of more basic composition. There are 30 references.

Author's summary

[Abstracter's note: Complete translation]

ZHDANOV, V.V.; REZANOV, I.A.

Present status and problems of studying physical properties of rocks under conditions of high pressure and temperature. Izv. AN SSSR. Ser.geol. 27 no.11:75-83 N '62. (MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad, i Institut fiziki Zemli, Moskva.  
(Rocks--Testing)



REZANOV, I.A.

The structure of the earth crust in the terrace regions. Analele geol  
geogr 17 no.1:3-20 Ja-Mr '63.

5/169/62/000/010/005/071  
5220/1307

Author: Leznev, I....

Title: Crustal structure of platform regions

Source: Akademicheskyy zhurnal, Geofizika, no. 10, 1962, 9,  
abstract 10-54 (Byul. Mosk. o-va issyt. prirody,  
Izd. Geol., 37, no. 1, 1962, 25-42)

Summary: Analyzing the latest data of deep seismic sounding and of laboratory measurements of seismic wave velocities in rocks under high pressure, the author concludes that throughout its thickness the crust is formed of metamorphic rocks down to the Mohorovicic discontinuity. The author sees the seismic boundaries within the crust as structural surfaces (unconformity surfaces), separating structural stages of various ages. Ancient platforms, in contrast to young ones (epi-Saleonic), are characterized by a denser crust and may have a more basic composition. 50 references.

[Abstractor's note: Complete translation]

REZANOV, I.A.

Geological interpretation of the Magadan-Kolyma profile of deep seismic sounding. Izv. AN SSSR. Ser. geofiz. no.7:865-872 J1 (MIRA 15:7)  
'62.

1. Institut fiziki Zemli, AN SSSR.  
(Khabarovsk Territory--Seismic prospecting)

REZANOV, I.A., kand.geol.-mineral.nauk

Into the depths of the earth; composition and origin of the basalt layer of the earth crust. Priroda 51 no.6:84-91 Je '62. (MIRA 15:6)

1. Institut fiziki Zemli im. O.Yu.Shmidta AN SSSR, Moskva.  
(Geology, Stratigraphic) (Seismic prospecting)

REZANOV, I.I., sanitarnyy vrach

Concerning Professor S.A. Giliarevskii's article "Role of clinical instruction in the training of specialists in preventive medicine."  
Gig. i san. 23 no.7:83 J1 '58. (MIRA 12:1)

1. Iz sanitarno-epidemiologicheskoy stantsii Noginska.  
(MEDICINE--STUDY AND TEACHING)

NOVIKOV, Yu.V., kand.med.nauk; REZANOV, I.I., mladshiy nauchnyy sotrudnik


Hygienic problems in studying the effect of increased natural  
radioactivity of the environment on the health of the population.  
Gig. i san. 27 no.3:76-84 Mr '62. (MIRA 15:4)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny  
imeni F.F.Erismana Ministerstva zdravookhraneniya RSFSR.  
(RADIOACTIVITY--PHYSIOLOGICAL EFFECT) (PUBLIC HEALTH)

S/240/62/000/003/003/0030  
1015/1215

AUTHOR: Novikov, Yu. V., Candidate of Medical Sciences, Rezanov, I. I., Junior Research Fellow  
TITLE: Problems of hygiene associated with the study of the effect of an increase in the natural radioactive background of the external environment on the health of a population  
PERIODICAL: *Gigiyena i sanitariya*, no. 3, 1962, 76-84

TEXT: This article reviews the natural occurrence of radioactive isotopes (uranium, thorium, radium, and potassium) in rivers, lakes, seas, oceans, soil and food. He relates the level of these radio-isotopes to their level in a population of the corresponding areas and to the incidence of malignancy (especially bone tumors and leukemia) in the corresponding population. The author points to the importance of the statistical method of investigation in order to obtain reliable data as far as the effect of natural radiation on public health and the establishment of quantitative hygienic criteria are concerned. The necessity to correlate data from different geographic regions is stressed. There are 10 tables. The English language references read as follows: Effect of Radiation on Human Heredity. Investigations of Areas of High Natural Radiation. Geneva, 1959. — Hurch J. H., Brit. J. Radiol., 1958, Suppl. 7, p. 43. — Lindell B., Dobson R. L., Ionazin Radiation and Health. Geneva, 1961. — Marinelli L. D., Am. J. Roentgenol., 1958, v. 80, p. 729. — Roubault M., Pascal J., Coppens R., C. R. Acad. Sci., 1958, v. 247, p. 369. — Sackett W. M. et al., Science, 1958, v. 128, p. 204.



Problems of...

S/240/62/000/003/003/003  
1015/1215

ASSOCIATION: Moskovskiy nauchno-issledovatel'skiy institut gigiginy imeni F. F. Erusmana, Ministers-  
tva zdravookhraneniya RSFSR (Institute of Hygiene Research imeni F. F. Erisman  
Moscow, Ministry of Health, RSFSR)

SUBMITTED: September 28, 1961

✓



REZANOV, P.S., (Severomorsk, Murmanskaya oblast')

Temporary ptosis following tenotomy. Vest.oft. 71 no.3:38-39 My-Je '58  
(MIRA 11:9)

(EYELIDS--DISEASES)

REZANOV, P.S.

Role of the central nervous system in regulating vascular permeability in the eye. Vest.oft. 34 no.6:3-6 N-D '55.

(MLRA 9:1)

1. Iz kafedry glaznykh bolezney (nach-dotsent P.I.Gapeyev)  
i kafedry normal'noy fiziologii (nach-chlen-korrespondent  
AMN SSSR prof. A.V.Lebedinskiy) Voenno-morskoy meditsinskoy  
akademii.

(EYE, blood supply,  
vasc. permeability, regulation by CNS)

(CENTRAL NERVOUS SYSTEM, physiology,  
regulation of eye vasc. permeability)

REZANOV, P.S., mayor med. sluzhby

Studies on the permeability of the ocular vessels using tagged atoms.

Voen. med. zhur. no.2:41 F '59 .

(MIRA 12:7)

(AQUEOUS HUMOR, physiolo.

blood-aqueous barrier permeability, radiophosphorus  
test (Rus))

(PHOSPHORUS, radioactive

blood-aqueous barrier permeability test (Rus))

REZANOV, P.S. (Severomorsk)

Rare case of dermoid cyst. Oft. zhur. 16 no.7:438 '61.  
(CYSTS) (EYE--TUMORS) (MIRA 14:12)

SHERMAN, S.I.; KUZ'MIN, D.S.; REZANOVA, L.M.; PEVERGE, N.S.;  
KISELEVA, A.N.

Immediate and remote results of the treatment of patients with  
chronic leukoses.

(LEUKEMIA)<sup>2</sup>

BAYANDINA, S.A., dots.; REZANOVA, M.N.

Restoration of motor skills in children with hypotrophy by means of exercise therapy in the hospital. Vop. okh. mat. i det. 3 no.1:76-81 Ja-F '59.

1. Iz Kafedry detskikh bolezney (zav. - deystvitel'nyy chlen AMN SSSR prof. Yu. F. Dombrovskaya) I Moskovskogo ordena Lenina meditsinskogo instituta im. I.M. Sechenova.  
(EXERCISE THERAPY) (DEFICIENCY DISEASES)

PAPKELV, A.D.; BELANOVA, L.T.; YEGOROVA, Yh.P.; IGNATIYEVA, Ye.N.

Theoretical and petrographic characteristics of the coals of  
Gusinozersk deposits of the Buryat A.S.S.R. Izv. SO AN  
SSSR no. 7 Ser. Khim. nauk no. 3:134-138 '65.

(MIRA 18.12)

1. Buryatskiy kompleknyy nauchno-issledovatel'skiy institut,  
Ulan-Ude. Submitted May 5, 1964.

DARIYEV, A.D.; REZANOVA, O.I.

Composition of ashes of Gusinozersk coals. Krat.soob. EKNII  
no.3:53-55 '62 (MIRA 16:5)  
(Gusinozersk region--Coal--Analysis)



REZANOVA, O.N.; SLUTSKIY, M.S.; SHTEYNBUK, V.S.

Decisions of the plenum of the Central Committee of the CPSU  
constitute the program of our work. Izv.vys.ucheb.zav.; geol.  
i razv. 6 no.11:7-12 N '63. (MIRA 18:2)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.

KONTOROVICH, A.E.; REZAPOV, A.N.; SADIKOV, M.A.

Some geochemical characteristics of Mesozoic sediments in the north-  
western part of the West Siberian Plain. Trudy Inst.geol.i geofiz.Sib.  
(MIRA 17:10)  
Izd.AN SSSR no.20:85-101 '63.

REZAPOV, A.N.

New data on the geology of the Tengiz Depression; based on  
materials of deep drilling. Trudy VNIGRI no.124:277-284 '58.  
(MIRA 16:7)

(Tengiz Depression—Geology, Structural)

OSTRYI, G.B.; REZAPOV, A.N.

Paleozoic and Mesozoic stratigraphy of the northeastern part of  
the West Siberian Plain. Trudy SNIIGGIMS no.1:40-47 '59.  
(MIRA 15:4)

(West Siberian Plain--Geology, Stratigraphic)

BELOUS, I. Kh., st. nauchn. sotr.; KAZANSKIY, Yu. P.; VDOVIN, V. V.;  
 KLYAROVSKIY, V. M.; KUZNETSOV, V. P.; NIKOLAYEVA, I. V.;  
 NOVOZHILOV, V. I.; SENDERZON, E. M.; AKAYEV, M. S.; BABIN,  
 A. A.; BERDNIKOV, A. F.; GORYUKHIN, Ye. Ya.; MAGORSKIY, M. P.;  
 PIVEN', N. M.; BAKANOV, G. Ye.; GEBLER, I. V.; SMOLYANINOV,  
 N. M.; SMOLYANINOVA, S. I.; YUSHIN, V. I.; D'YAKONOVA, N. D.;  
 REZAPOV, N. M.; KASHTANOV, V. A.; GOL'BEIT, A. V.; SILOROV,  
 A. F.; GARMASH, A. A.; BYKOV, M. S.; BORODIN, L. V.; RYCHKOV,  
 L. F.; KUCHIN, M. I.; SHAKHOV, F. M., glav. red.; SHAKOVSKAYA,  
 L. I., red.

[West Siberian iron ore basin] Zapadno-Sibirskii zhelezorud-  
 nyi bassein. Novosibirsk. Red.-izd. otdel Sibirskogo otd-  
 elia AN SSSR. 1964. 247 p. (MIRA 17:12)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geo-  
 logii i geofiziki. 2. Institut geologii i geofiziki Sibirskogo  
 otdeleniya AN SSSR (for Belous, Kazanskiy, Vdovin, Klyarovskiy,  
 Kuznetsov, Nikolayeva, Novozhilov, Senderzon). 3. Institut  
 gornogo dela (for Akayev). 4. Novosibirskoye geologicheskoye  
 upravleniye Ministerstva geologii i okhrany nefti SSSR (for  
 Babin, Berdnikov, Goryukhin, Magorskiy, Piven').  
 (Continued on next card)

BELOUS, N Kh.---(continued). Carl 2.

Tomskiy politekhnicheskii institut (for Kabanov, Golbert, Smolyaninov, Smolyaninova). 5. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya (for Iushin, D'yakonova, Rezapov, Kashtanov, Gol'bert). 6. Institut ekonomiki sel'skogo khozyaystva (for Garmash). 7. Sibirskiy metallurgicheskii institut (for Bykov, Borodin, Kyzlasov). 8. Tomskiy inzhenerno-stroitel'nyy institut (for Kuchin). 9. Otdel-korrespondent AN SSSR (for Shakhov).

AY  
USSR/Physical Chemistry - Molecule. Chemical Bond.

B-4

Abs Jour : Referat Zhur - Khimiya, No 6, 25 March 1957, 18175

Author : Rezacv, N.I., Bazhulin, P.A.

Title : Measurement of Contours and Widths of Lines of Raman Spectra by the Method of Photoelectrical Registration

Orig Pub : Optika i spektroskopiya, 1956, 1, No 5, 715-718

Abstract : The form and the width of certain lines of Raman spectra of benzol (I), toluol (II), ethylbenzol (III), n-butylbenzol (IV) and n-hexylbenzol (V) were examined by the photoelectrical method. The contours of all lines which have been measured and contour of the exciting line approached to dispersion contour, and therefore the determination of the width of lines of Raman spectra was carried out by deducting the width of the exciting line from the width of the observed contour of a line. The following values of frequencies ( $\text{cm}^{-1}$ ) and widths (in brackets)

USSR/Physical Chemistry - Molecule. Chemical Bond.

B-4

Abs Jour : Referat Zhur - Khimiya, No 6, 25 March 1957, 18175

were found:

I 606(7.3); 992(1.9); 1586(12.0); 1606(11.0).  
II 786(2.3); 1004(1.8); 1031(2.1); 1585(9.6); 1605(8.6).  
III 1005(1.9); 1032(3.5); 1583(11.0); 1606(8.5).  
IV 1003(3.6); 1033(4.5); 1585(7.6); 1606(7.7).  
V 1003(2.6); 1031(3.8); 1584(6.8); 1606(7.9).



PRIKHOT'KO, N F  
24(7) 3 PHASE I BOOK EXPLOITATION SOV/1365  
L'vov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Itsi: Fizichnyy zbirnyk, v7p. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Gazer, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Lavitsberg, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Pabelinskiy, I.L., Doctor of Physical and Mathematical Sciences, Pchelintsev, V.A., Doctor of Physical and Mathematical Sciences, Korotkiy, V.G., Candidate of Technical Sciences, Rayskiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Milyanduk, V.S., A. Ye., Candidate of Physical and Mathematical Sciences, and Glauberman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

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Karvatskiy - - -

str: 4E4j/4E2c(j)/  
4E3d/4E4c

Investigations of the structures of the Raman lines in the liquid and the solid state of materials by aid of the photoelectric method. N. I. Rezacy, *Vestnik Moskov. Univ.* 12, Ser. Mat., Mekh., Astron., Fiz. i Khim. No. 2, 146-55(1957). The materials investigated were p-xylene (I), cyclohexane (II), and p-dibromobenzene (III). The equipment used was a specially adapted DRS-4 spectrophotometer (drawings presented). The accessories were designed to allow the investigation of I, II, and III, both in the liquid and the solid region. Curves presented for the change of the widths with temp. of the polarized and depolarized lines of the Raman spectra light; and the temp. course for the depolarized line widths confirm the classical relaxation times of the mols. in the liquid  $\theta = 4\pi a^2 \eta / 3kT$ , where  $a$  = the effective radius of the mol.,  $\eta$  = the viscosity, and  $T$  = the abs. temp. 20 references.

Werner Jacobson

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REZAYEV, N.I.

535.343.9 : 535.375.6  
 130. INTENSITY AND WIDTH OF THE RAMAN LINES OF  
 BENZENE AND CARBON DISULPHIDE. 2)  
 R. Mierzecki and N.I. Rezayev.  
 Bull. Acad. Polon. Sci., Cl. 3, Vol. 5, No. 8, 643-8 (1987).  
 Measurements of Raman line peak intensities, integrated  
 intensities and shapes were made for C<sub>6</sub>H<sub>6</sub> and CS<sub>2</sub> with a DFB-4  
 Soviet diffraction grating spectrometer with photoelectric detection. 2)  
 Agreement is obtained with earlier work with photographic detection,  
 and with theory. D.H. Whiffen

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 1-4E3h  
 1-4E4j  
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REZAYEV, N. I.

Studying the contours of Raman lines of a substance in the liquid and solid states by the photoelectric method. Vest. Mosk. un. Ser. mat., mekh., astron., fiz., khim. 12 no. 2: 145-155 '57. (MIRA 10:12)

1. Kafedra optiki Moskovskogo universiteta.  
(Raman effect) (Liquids) (Crystals)

REZAYEV, N. I., Cand Phys-Math Sci -- (diss) "Study of the contours of lines of combination dispersion in the condensed phase of a substance by the photoelectric method." Mos, 1958. 9 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ im M. V. Lomonosov, Phys~~ic~~ Faculty, Chair of Optics), 150 copies (KL, 35-58, 105)

-3-

51-4 -1-15/26

AUTHORS: Rezayev, M. I. and Mezhet'skiy, R.

TITLE: Investigation of the Intensity and Width of Combination Scattering Lines of Benzene and Carbon Disulphide.  
(Issledovaniye intensivnosti i shiriny liniy kombinatsionnogo rasseyaniya benzola i serougleroda.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.1, pp. 95-98. (USSR)

ABSTRACT: Theoretical calculations of the Raman line intensities for benzene were carried out by Whiffen (Ref.1), and for carbon disulphide by Vol'kenshteyn (Ref.2). Experimental measurements of intensities of  $C_6H_6$  and  $CS_2$  lines are reported in several papers. For comparison of theory with experiment the present authors measured integral intensities of  $C_6H_6$  and  $CS_2$  lines by a photoelectric method using narrow spectrometer slits, when line shapes are not distorted. Measurements were

51-4 -1-15/26

Investigation of the Intensity and Width of Combination Scattering Lines of Benzene and Carbon Disulphide.

spectrum was excited with a low-pressure lamp at room temperature. Benzene spectrum was excited with 4358 Å line. The results are shown in Fig.3. The region round 3047  $\text{cm}^{-1}$  line was studied separately, using 4047 Å excitation. The latter results are shown in Fig.4.  $\text{CS}_2$  spectrum was excited using the 4358 Å line. In the  $\text{CS}_2$  spectrum the authors studied fully-symmetrical vibrations with 656  $\text{cm}^{-1}$  frequency (Fig.1) and the harmonic of deformation vibration at 796  $\text{cm}^{-1}$  (Fig.2). The lines in each group were separated by a graphical method, on the assumption of symmetry of their shapes. In the 641-656  $\text{cm}^{-1}$  group an additional component with a frequency of about 653  $\text{cm}^{-1}$  was observed. The true

51-4 -1-15/26

Investigation of the Intensity and width of Combination Scattering Lines of Benzene and Carbon Disulphide.

line width  $\delta$ , integral intensities  $I_0$ , and observed intensities at the maximum  $I_m$  are given in Table 1. Each of the benzene lines was measured 10 times, and each of the  $CS_2$  lines 6-7 times. The errors in the quantities reported in Table 1 are estimated to be about 10%. Comparison of the benzene line intensities (Table 2) shows that the quantities  $I_m$  measured by the present authors agree satisfactorily with photoelectric measurements of other authors (Refs. 11, 14, 15). The experimental values of the  $CS_2$  line intensities obtained by various authors differ somewhat. Table 2 shows also that the experimental values for  $C_6H_6$  and  $CS_2$  reported by the present



51-4 -1-15/16

Investigation of the Intensity and Width of Combination Scattering  
Lines of Benzene and Carbon Disulphide.

Authors thank P.A. Bazhulin for advice and interest.

There are 4 figures, 2 tables and 16 references, of  
which 9 are Russian, 5 English, 1 Italian and 1 Polish.

ASSOCIATION: Moscow State University. (Moskovskiy gosudarst-  
vennyy universitet.)

SUBMITTED: March 19, 1957.

AVAILABLE: Library of Congress.

1. Benzene-Scattering lines-Theory
2. Carbon disulphide-  
Scattering lines-Theory

000000 0/1

SOV/51-5-5-10/23

AUTHOR: Rezaev, N.I.

TITLE: A Study of the Intensity and Width of Raman Lines as a Function of Molecular Structure (Izucheniye intensivnosti i shiriny liniy kombinatsionnogo rasseyaniya v zavisimosti ot struktury molekul)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 5, pp 561-566 (USSR,

ABSTRACT: The present paper deals with the intensities and widths of Raman lines which are characteristic of certain molecular structures. The authors studied benzene and its following derivatives: toluene, ethyl benzene, n-butyl benzene, n-hexyl benzene and paraxylene. Kovner (Refs 13, 14) calculated theoretically the vibrational frequencies for these molecules and this made it possible to identify precisely the various Raman lines. The author studied lines due to vibrations of the ring and coupling of the ring with the substituent group. The intensity and line-width were measured using a photoelectric spectrometer DFS-4, as described in Refs 15, 16. Values of the frequencies were taken from Ref 12 and of the degree of depolarization - from Ref 17. For n-hexyl benzene lines the degree of depolarization  $\rho$  was measured by the method described in Ref 16. The spectra were obtained using

Card 1/2

a Study of the Intensity and Width of Raman Lines as a Function of Molecular Structure SOV/51-5-5-10/23

excitation with the 4358 Hg line at room temperature. Two light sources were used: a low-pressure lamp (Ref 16) and PRK-2 under normal conditions. The results obtained using the two lamps are practically identical. Table 1 gives the intensities and line-widths of the Raman lines of benzene and toluene using the two lamps (subscript 1 denotes low-pressure lamp and subscript 2 denotes PRK-2). Table 2 gives the intensities, line-widths (in  $\text{cm}^{-1}$ ), degrees of depolarization, frequencies and vibration symmetry types for the Raman lines of the six molecules studied. The results obtained show that the integral intensity and degree of depolarization of many lines are characteristic parameters which depend on molecular structure. The line-widths are not a suitable guide to structure. The variation of the line widths between the six molecules studied is due to internal molecular processes and in the case of depolarized lines also due to relaxational processes in liquids. The author thanks P.A. Bazhulin for his advice. There are 1 figure, 2 tables and 45 references, 39 of which are Soviet.

Card 2/2

1. Molecular structure--Theory
2. Benzenes--Molecular structure
3. Raman spectroscopy

24(7)

SOV/51-7-1-20/27

AUTHORS: Rezayev, N.I. and Andreyev, N.S.

TITLE: Investigation of the Temperature Dependence of the Intensity and Width of Raman Lines (Issledovaniye temperaturnoy zavisimosti intensivnosti i shiriny liniy kombinatsionnogo rasseyaniya)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, Nr 1, pp 119-122 (USSR)

ABSTRACT: The Raman spectrum of liquid metaxylene was investigated between  $-30^{\circ}\text{C}$  and  $+160^{\circ}\text{C}$  using a photoelectric spectrometer. The intensities of all the Raman lines of metaxylene in the  $279\text{-}1613\text{ cm}^{-1}$  region rose with temperature, contradicting the theory which predicts a fall with temperature. The same behaviour was observed earlier (Ref 11) in paraxylene. The greatest departures from theory were observed in lines due to deformational vibrations of the external ring angles and  $\text{CH}_3$  groups ( $\beta$ -form vibrations), confirming earlier suggestions (Refs 6, 10, 20, 21) that the vibration form affects strongly the temperature and concentration dependences of the Raman line intensities. There was no correspondence between the temperature dependence of the metaxylene Raman line intensities and the effect of temperature on widths of the same lines. Widths of all the lines rose with temperature (figure on p 121).

SOV/51-7-1-20/27

Investigation of the Temperature Dependence of the Intensity and Width of Raman Lines

and this rise depended on the degree of line depolarization: the greater the depolarization the steeper the rise of line width with temperature. Temperature broadening of the metaxylene Raman lines is primarily due to relaxation processes in liquids, but the effect of intermolecular interaction cannot be ruled out. Acknowledgment is made to P.A. Bazhulin for his help in carrying out this work. There are 1 figure, 1 table and 22 references, 18 of which are Soviet and 4 English.

SUBMITTED: December 24, 1957

Card 2/2

S/188/62/000/006/012/016  
B125/B104

AUTHORS: Rezayev, N. I., Baula, G. G.

TITLE: An investigation of the width of the Raman lines of solutions

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 6, 1962, 63 - 65

TEXT: The width of the lines of Raman scattering in the binary equimolar solutions benzene -  $\text{CCl}_4$ , benzene - chloroform, chloroform - acetone, and acetone -  $\text{CCl}_4$  was measured with a diffraction spectroscopy after a method worked out by N. I. Rezayev and N. S. Andreyev (Optika i spektroskopiya, 7, 119, 1959). The widths of most of the polarized and of the depolarized lines of the compounds remain unchanged in the solutions. Only the benzene lines with  $607 \text{ cm}^{-1}$  in the mixture benzene -  $\text{CCl}_4$  and with  $1178 \text{ cm}^{-1}$  in the mixture benzene - chloroform increase or decrease (according to the dominant mode of vibration). The remarkable broadening of the lines  $3020 \text{ cm}^{-1}$  of the valency vibrations of the CH group of chloroform in

Card 1/2

An investigation of the ...

S/188/62/000/006/012/016  
B125/B104

mixtures with acetone confirms the existence of a hydrogen bond between the C=O group of acetone and the CH group of chloroform. This bond leads to a considerable broadening of the line of the chloroform CH group valency vibration, but it has no effect upon the line width of the valency vibration of the C=O group in acetone. The hydrogen bond of the type CH...O+C in the chloroform - acetone system is not definitely proven. There is 1 table.

ASSOCIATION: Kafedra-optiki (Department of Optics)

SUBMITTED: April 4, 1962

Card 2/2

REZAYEV, N.I.; SHCHEPANYAK, K.

Use of Raman line contours in studying molecular interaction in  
solutions. Opt. i spektr. 16 no.3:436-445 Mr '64. (MIRA 17:4)



L 9886-66 EWT(1)/EWT(m)/EWP(j) IJP(c) RM  
ACC NR: AP5027665 <sup>44,55</sup> SOURCE CODE: UR/0051/65/019/005/0738/0742

AUTHOR: Rezayev, N. I.; Shchepanyak, K. <sup>44,55</sup>

CRG: none

TITLE: The effect of intramolecular interaction on the outline of bands of Raman spectra of dioxane <sup>44,55</sup> in solutions

SOURCE: Optika i spektroskopiya, v. 19, no. 5, 1965, 738-742

TOPIC TAGS: <sup>21,44,55</sup> raman spectrum, spectroscopy, dioxane, <sup>21,44,55</sup> molecular interaction

ABSTRACT: Dioxane (I) solutions in H<sub>2</sub>O, CHCl<sub>3</sub>, and CCl<sub>4</sub> were investigated. A photoelectric spectrometer (DSF-4) with light scattering 6.7 Å was used for the measurements, the 4358/Hg line as excitation source, and an aqueous NaNO<sub>2</sub> solution as light filter. The accuracy of the measurements of the integral intensity (δ) of bands was 5-20% and the width, 5-10%. The temperature was 25 C. The results indicate that the interaction H<sub>2</sub>O-H<sub>2</sub>O affects the contour of the band for the OH group much stronger than I-H<sub>2</sub>O (see Malyshev, V. I. Kand, diss. MGU, 1940). Nevertheless, the presence of (I) has a considerable effect on the H<sub>2</sub>O

L 9886-66

ACG NR: AP5027665

band, as the width becomes greater and  $\delta$  almost equals that of pure water. (I) molecules interact strongly also with each other. Comparison of the bands obtained for pure (I) with those in  $\text{CHCl}_3$  or  $\text{CCl}_4$  shows a very definite decrease in the width at frequencies 1305, 1440, 2854, and  $2966 \text{ cm}^{-1}$ . The intramolecular interaction may take place, e.g., through an H bond of a CH group of one molecule and an O of another. CH group valence vibration bands appear wider than those of fully symmetric vibration of the O-containing ring. For (I) in  $\text{H}_2\text{O}$ , where the interaction (I)-(I) is replaced by I- $\text{H}_2\text{O}$ , bands 1305 and 1440, and especially 2854 and  $2966 \text{ cm}^{-1}$ , undergo a less substantial change in width. Orig. art. has: 2 figures and 2 tables.

SUB CODE: 07/20/ SUBM DATE: 20Jul64/

NR REF SOV: 006/ OTHER: 005

REZAEV, N.I.; SPCHENAKA, K.

Studying electron interaction in conditions from Rosen scattering  
line contours. Jern, Mosk. un. Ser. 3: Fiz., astron. 20 no. 13-19  
Br.-Ap 165. (MIRA 18:5)

1. Kuznetsov, N.I. (1975) 17-18-19.

ACC NO. AM00577

SOURCE CODE: UR/0053/66/000/004/1060/1061

AUTHOR: Rezayev, N. I.; Sheparyak, R.

TITLE: Investigation of intermolecular interaction in solutions with the aid of Raman line contours

SOURCE: Ref. zh. Fizika, Abs. 4D466

REF SOURCE: Tr. Domis. po spektroskopii. AN SSSR, t. 3. vyp. 1, 1964, 169-179

TOPIC TAGS: molecular interaction, chloroform, organic solvent, Raman spectroscopy, spectral line, line width, hydrogen bonding

ABSTRACT: The authors measured the frequency, integral intensity, and the width of several lines of chloroform and of solvents in the following systems: chloroform - dioxane, chloroform - ethyl ether, chloroform - ethyl alcohol, chloroform - acetone, and chloroform - phosphorus oxychloride. A specific variation of the shape and width of the valence vibration line of the CH-group of the chloroform is established in all the investigated solutions. It is shown that an intermolecular interaction of the hydrogen-bonding type is realized in the investigated solutions between the CH-group of the chloroform and the molecule of the solvent. The energy of the intermolecular bond was measured for the chloroform - phosphorus oxychloride solution ( $2.0 \pm 0.5$  kcal/mole). [Translation of abstract]

SUB CODE: 20

REZAYEVA, L.T.

Micromethod for the photometric determination of oxygen in  
waters rich in organic substances. Zhur.anal.khim. 17 no.7:  
874-877 O '62. (MIRA 15:12)

1. Vernadskiy Institute of Geochemistry and Analytical Chemistry,  
Academy of Sciences, U.S.S.R., Moscow.  
(Oxygen--Analysis) (Water--Analysis)

KOVAL'SKIY, V.V.; REZAYEVA, L.T.; KOL'TSOV, G.V.

Trace element content in the organism and blood cells of ascidians.  
Dokl. AN SSSR 147 no.5:1215-1217 D '62. (MIRA 16:2)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo  
AN SSSR. Predstavleno akademikom A.P. Vinogradovym.  
(Trace elements in the body) (Tunicata)

REZAYEVA, L.T.

Blood acidity in *Ascidella aspersa*. Zhur. ob. biol. 24. no.3:  
236-239 My-Je '63. (MIRA 16:8)

1. V.I.Vernadsky Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences of the U.S.S.R.  
(TUNICATA) (BLOOD—ANALYSIS AND CHEMISTRY)  
(HYDROGEN-ION CONCENTRATION)

KOVAL'SKIY, V.V.; REZAYEVA, L.T.

Vanadium content in the blood of *Ascidella aspersa*. Dokl. AN  
SSSR 148 no.1:238-240 Ja '63. (MIRA 16:2)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo  
AN SSSR. Predstavleno akademikom A.P. Vinogradovym.  
(Vanadium in the body) (Tunicata)



L 46150-66

ACC NR: AI'6034078

SOURCE CODE: UR/0221/65/060/001/0045/0061

AUTHOR: Koval'skiy, V. V. Moscow; Bezayeva, L. T. (Moscow)

ORG: Institute of Geochemistry and Analytical Chemistry im. V. I. Vernadskiy,  
AN SSSR (Institut geokhimi i analiticheskoy khimii AN SSSR)

TITLE: Biological role of vanadium in Ascidians

SOURCE: Uspekhi sovremennoy biologii, v. 60, no. 1, 1965, 45-61

TOPIC TAGS: vanadium, physiology

ABSTRACT: Ascidians are organisms that selectively concentrate vanadium from sea water and food (microorganisms, detritus, and plankton organisms), and as such are of special interest in the study of the biological role of vanadium. The authors survey the literature and their own data on the dynamics of vanadium in the blood of Ascidians, in which this element is localized chiefly in the blood cells. The observed oxidation-reduction conversion of hemolysates of Ascidian blood cells are evidently related to a transfer of electrons with the aid of a vanadium system. It is proposed that the physiological role of vanadium in the Ascidian organism is related to oxidation-reduction processes. Orig. art. has: 9 figures, 5 tables and 1 formula. [JPRS: 34,186]

SUB CODE: 04 / SUBM DATE: none / ORIG REF: 019 / OTH REF: 055

REZBAYEV, A.F. (Chernigov)

Case of serious intoxication following the use of paraaminosalicylic  
acid and streptomycin. Vrach. delo no. 1:117-118 '61. (MIRA 14:4)  
(SALICYLIC ACID—TOXICOLOGY) (STREPTOMYCIN)

REZDAYEV, A.F.

An Instance of Acute Infectious Myocarditis With Phenomena of Prolonged Paroxysmal Tachicardia

VOYENNO-MEDITSINSKIY ZHURNAL (Military Medical Journal), no. 2, February 1955, p. 68

BEZAVEVA, L. T. (USSR)

"Vanadium in the Ascidians."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

REZCHIK, I.G. [Riezchik, I.H.], inzh.-mekhanik

Reconditioning piston pairs by cold chromium plating.  
Mekh. sil'. hosp. 14 no.9:14 S '63. (MIRA 17:1)

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; SHAMIL', Yu.P.; KUEGANOV, V.V.;  
VASIL'YEV, S.N.; REZCHIK, V.G.

Testing unfired molded, brick made of magnesia concrete  
in electric arc furnace walls. Stal' 24 no.8:710-711 Ag '64.  
(MIRA 17:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ognepetrov i  
zavod "Dneprospetsstal".

METROFANOV, A.I., kand. ekon. nauk; TIMIDZHIYEV, R.N., kand.  
ekon. nauk; BEREGOVA, L.I.; SLABCHENKO, S.K.; SHAPIRO,  
Ye.A.; KORZUN, P.P., kand. ekon. nauk; KHAVZIN, S.N.,  
kand. ekon. nauk; REZCHIKOV, A.I.; KONIKOV, L.A., red.;  
GERASIMOVA, Ye.S., tekhn. red.

[Determining specific capital investments in industry]  
Opređenje udel'nykh kapital'nykh vlozhenii v promysh-  
lennosti. Moskva, Ekonomizdat, 1969. 215 p.

(MIRA 17:1)

1. Tsentral'nyy nauchno-issledovatel'skiy ekonomicheskii  
institut.

(Capital investments)

GINZBURG, A.S.; REZCHIKOV, V.A.

Method for calculating the duration of grain drying in a pseudo-fluidized bed. Inzh.-fiz.zhur. 5 no.8:40-47 Ag '62.

(MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki, Moskva.

(Grain--Drying) (Fluidization)



GINZBURG, A.S.; REZCHIKOV, V.A.

Basic aerodynamic and structural characteristics of a pseudo-  
liquefied layer of grain. Inzh.-fiz.zhur. no.5:55-60 My '62.  
(MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i  
produktov yego pererabotki, Moskva.  
(Fluidization)

GINZBURG, A.A. , LEVIN, B.M. , REZNIKOV, V.A.

New book Fluidized Bed Drying by P.C. Romankov, N.B. Rashkovskaya.  
Khim. prom. 41 no.2:72 F '65. (MIRA 13:4)

1. Moskovskiy tekhnologicheskii institut pishchev.  
promyshlennosti (for Leningrad). 2. Sibirskiy tekhnologicheskii  
institut (for Leningrad). 3. Vsesoyuznyy nauchno-issledovatel'skiy  
institut zerna (for Resnikov, V.A.).

L 07921-67 EWT(1)/EWT(m) IJP(c)

ACC NR: AT5031762

SOURCE CODE: UR/3092/66/000/004/0123/0135

AUTHOR: Belyak, A. Ya.; Gusev, O. A.; Nechayev, A. G.; Rezchikova, N. S.

ORG: none

TITLE: Controlling the magnetic field derivative during injection into a synchrotron

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury.  
Elektrofizicheskaya apparatura, no. 4, 1966, 123-135

TOPIC TAGS: synchrotron, magnetic field intensity, magnetic field stabilization

ABSTRACT: The physical basis for controlling the magnetic field derivative, the method for controlling this derivative, the variation in this derivative as a function of circuit parameters, the selection of circuit parameters, and the methods of stabilizing the derivative are established and verified experimentally by means of a model. The model consisted of a charging network, a discharging network and a system for stabilizing the voltage of the storage capacitor. The model was tested both in the stationary and transient state. The results of the experiment showed that in order to obtain a discharge current pulse with an amplitude of 210 amp, the maximum for the model, the storage capacitor must be charged to a voltage of 2500 v while the voltage of the charging transformer reaches a value of 220 v. A stable operation of the system was obtained by varying the damping resistance in the range from 40 to 400 ohms when the

L 07921-67

ACC NR: AT6031762

model was powered by line voltage. Oscillograms of the transient process show that after the circuit is turned on, a steady state is established after 7-8 periods. The stabilization system becomes active during the 6th period. The results of the investigation showed that the equations derived and used to compute the circuit parameters of the model are valid. Orig. art. has: 7 figures, 18 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 004

ENCLOSURE ENCL

ACC NR: AT6031764

SOURCE CODE: UR/3092/66/000/004/0144/0159

AUTHOR: Gusev, O. A.; Rezchikova, N. S.

29

ORG: none

B+1

TITLE: Transient processes in an ion inverter operating with a tuned circuit

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury. Elektrofizicheskaya apparatura, no. 4, 1966, 144-159

TOPIC TAGS: synchrotron, ion inverter, switching circuit, Mev accelerator

ABSTRACT: An analysis is presented of transient processes in a parallel ion inverter with the natural switching of current and in an inverter with an artificial current switching element in the form of a tuned circuit. The method described was used to compute the transient processes in the power system of the 280 Mev synchrotron at the FIAN (institute). The nature of the curves associated with the transient processes shows that 1) during operation with a high Q tuned circuit, the envelope of the transient process in the inverter has an oscillatory nature; 2) in the inverter with natural commutation, the amplitudes of transient currents and voltages have a slightly larger value compared with the corresponding values in the inverter with an artificial switching element; 3) the maximum overshoot in both systems is exhibited by currents in the cathode reactor circuit during the first half cycle of the oscillatory

ACC NR: AT6031769

transient process; 4) in the inverter with the artificial switching element the graph of the voltage on the switching capacitor coincides with the graph of the current in the cathode reactor circuit; 5) when utilizing devices to improve commutation without affecting the transient process; they must be designed on the basis of maximum transient current switching since this current may be substantially greater than the current in the steady state mode. The results of the analysis present a sufficiently complete explanation of phenomena associated with the disruption of inverter switching current during transient operation. Orig. art. has: 34 formulas, 3 figures.

SUB CODE: 09/      SUBM DATE: none/      ORIG REF: 004

ACCESSION NR: AR4021601

S/0269/64/000/002/0018/0018

SOURCE: RZh. Astronomiya, Abs. 2.51.146

AUTHOR: Reze, G.

TITLE: Accuracy of artificial earth satellite observations with the large universal instrument of the Potsdam Geophysical Institute

CITED SOURCE: Byul. st. optich. nablyudeniya iskusstv. sputnikov Zemli, spets. vy\*p., 1962, 62-65

TOPIC TAGS: artificial satellite, artificial earth satellite, artificial satellite observation, artificial satellite observation station, AT-1 telescope, quartz clock, artificial satellite orbit, visual artificial satellite observation

TRANSLATION: The optical earth satellite observation station at Potsdam uses a large universal instrument (circle diameter 26 cm, circle graduation 5', striding level graduation 2") for artificial satellite observations in an azimuthal coordinate system. The instrument has an AT-1 telescope and is adapted for the photographic recording of circle readings. Observation times are recorded using

ACCESSION NR: AR4021601

a chronograph connected to a quartz clock. The circle settings in most cases are made using stars situated near the apparent satellite orbit. The errors introduced by instrument error are evaluated. The internal errors of artificial satellite observations for satellite positions between  $17^{\circ}$  and  $57^{\circ}$  are determined ( $\pm 2'.0$  in azimuth and  $\pm 2'.0$  in height). Data were compared with photographic observations and the following errors derived:  $\pm 4'.0$  in azimuth and  $\pm 3'.0$  in height. The resulting accuracy is considered inadequate for solution of precise geodetic problems. A camera with a Zeiss mirror-lens objective (F = 50 cm, 1:4) is being developed at the station. Bibliography of 6 titles. V. Novopashenny.

DATE ACQ: 09Mar64

SUB CODE: AS

ENCL: 00



L 54807-55 EEO-2/EWT(d)/FBD/FSS-2/EWT(1)/FS(v)-3/EEG(k)-2/EWA(d)/T-2/EEG(c)-2/EED-2  
Pn-4/Po-4/Pq-4/Pac-4/Pg-4/Pae-2/Pk-4/Pl-4-GW

ACCESSION NR: AT5003484

UR/3126/6.2/000/001/0062/0065

AUTHOR: Reze, G.

TITLE: Accuracy of satellite tracking with the aid of the large universal instrument of the Geodetic Institute in Potsdam

SOURCE: Nablyudeniya iskusstvennykh sputnikov Zemli, no. 1, 1957-1962. Moscow, 1962. Byulleten' stantsiy opticheskogo nablyudeniya iskusstvennykh sputnikov Zemli; spetsial'nyy vypusk, 62-65

TOPIC TAGS: tracking equipment, space coordinate tracking

ABSTRACT: Accuracy estimates for absolute determinations of artificial satellite horizontal coordinates with the help of a universal instrument supplied with circles with the value of the division 5' and photographic registration are given. There is 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: DC

NO REF SOV: 001

OTHER: 005

REZEANU, Nona, Ing.

Considerations on the manufacture of corrugated cardboard  
with reference to the equipment and production of the  
7 Noiembrie Plant for stationery articles. Cel hirtie 10 no.6:  
202-208 Ja'61.

14

co

Mineral water of Rogatsh. Abotm Ruzek. Bull. soc. chim. roy. Yougoslav. 2, 215-23 (1931). Results of a detailed examn of the mineral water of Rogatsh show that since 1907 its compn has remained const. A no. of tables are given. T. G. TORPIN

AS A S. A. METALLOGICAL LITERATURE CLASSIFICATION

MEDICINAL MINERAL WATER OF ROGANSHA BLATINA (YUGOSLAVIA)																									
<p>II. Catalytic action. A. Relch and I. Pinter (Bull. soc. chim. roy. Yougoslav. 6, 37 (1931) German 50 11 (1931); cf. C. A. 26, 6000; 26, 6107. This water gives a positive reaction with benzidine. Fe<sup>++</sup> and Mn<sup>++</sup> were found in two of the three springs investigated. The catalytic action is characterized by the values showing the decompn. of H<sub>2</sub>O<sub>2</sub> in 700 min. J. G. Tolpin</p>																									
<p>DETAILS OF LITERATURE CLASSIFICATION</p>																									

1ST AND 2ND GROUPS																										3RD AND 4TH GROUPS																									
PROCESSES AND PROPERTIES INDEX																										1ST AND 2ND GROUPS																									
<p>Sterol from corn silks. Josip Mikšić and Adolf Reček. <i>Farm. Vjesnik</i> 1933, No. 22, 8 pp.; <i>Chem. Zentr.</i> 1934, I, 1507. Ether exts. 2.43% of the corn silk. Of this ext. 26.67% is unsaponifiable; this contains 27.02% sterol. The corn silk itself contains 0.05% free and 0.034% esterifiable sterol. The sterol m. 139°, <math>[\alpha]_D^{25} = -32.1^\circ</math> (acetate m. 127-8°). It is possibly identical with the <math>\beta</math>-sitosterol isolated from corn oil. W. A. Moore</p>																																																			
<p>ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

CA

PROCESSES AND PROPERTIES INDEX

Reaction of glyoxal with dimethylhydroresorcinol.  
 Adolf Rebeck, *Bull. soc. chim. roy. Roumanie* 6, 115-20.  
 (16<sup>th</sup> German (20)(1935).--Glyoxal-tetramethon,  $C_{14}H_{12}O_6$ ,  
 a hydrated deriv. of tetraphenylethane, is formed by the  
 reaction between glyoxal and dimethylhydroresorcinol  
 with  $P_2O_5$  as condensing agent; the white cryst. product,  
 m. 235-6°, is sol. in MeOH, EtOH, CHCl<sub>3</sub>, AcOH, Ac<sub>2</sub>O,  
 and alkalis, and sparingly sol. in Et<sub>2</sub>O. Its aq. alc.  
 soln. is colored yellowish brown with FeCl<sub>3</sub>. It can be  
 titrated as a dibasic acid. I. G. Tolbin

10

154 554 METALLURGICAL LITERATURE CLASSIFICATION

BC

A-2

Mineral water of Nagasaki Station. A. HIRAKI  
(Bull. Soc. Chem. Yenching, 1935, 6, 179-187).--  
The  $H_2O$  activates salivary and pancreatic amylases  
(optimum  $pH$  6.0-6.6 and 6.0-6.8, respectively).  
The mechanism of activation is discussed. R. T.

ASM-51A METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX																									
<p>Modified boiling vessel for micro-analytic                      scope anal. wt. determinations by Pregl's                      method. A. Reing (Mikrochem., 1935, 18, 109,                      111). The vessel is broadened slightly at one side,                      from just below the meniscus of the solvent, to permit                      easier introduction of the pastille of solute.                      A. R. P.</p>																									
<p>ASME SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									



Mineral waters of Rogaska Slatina. Adolf Refek.  
*Bull. soc. chim. roy. Yougoslav.* 6, 179-86 (in German 1897).  
5: (1896); cf. *C. A.* 28, 3815. The concn. of mineral  
matter in the water varies with the well. Amylase prepd.  
with this water splits off 4-25% more maltose in compari-  
son with that made with distd.  $H_2O$ ; it is most reactive at  
pH 6.0-6.8. The presence of  $CO_2$  is held responsible for  
this action. Three tables give analytical results.  
I. G. Tolpin

ASA SLA METALLURGICAL LITERATURE CLASSIFICATION

10

PROCESSES AND PROPERTIES

The reaction between octahydroxytetraphenylethane and diazonium chloride. Yosi Mikshich and Adolf Rerek. *Bull. intern. acad. yougoslave sci. beaux arts, Classe sci. math. nat.* 29-30, 12-14(1936); *Chem. Zentr.* 1938, II, 3067. - Varying amts. (1-4 mols.) of PhN<sub>2</sub>Cl in faintly acid soln. were gradually mixed with an alc. soln. of 1 mol. of the previously described octahydroxytetraphenylethane (cf. *J. A. C.* 24, 5740). The dark red ppt. was reprecipd. from alc. and water and recrystd. from alc. This gave dark red crystals, charring at 253° without melting. They were more or less sol. in org. solvents. Solns. in alkalis and concd. H<sub>2</sub>SO<sub>4</sub> had an intensive red color. The latter, upon the addn. of water, gave a yellow-green fluorescence, probably as the result of the formation of xanthene derivs. In addn., the compd. gave a pos. fluorescein reaction. The reaction proceeded best when 2 mols. of the diazonium salt was used. Analysis and mol.-wt. detns. indicated the compd. to be a *di(benzene-azo)octahydroxytetraphenylethane*, C<sub>24</sub>H<sub>16</sub>O<sub>8</sub>N<sub>4</sub>. With Ac<sub>2</sub>O-pyridine it gave an octa-Ac deriv., C<sub>24</sub>H<sub>16</sub>O<sub>8</sub>N<sub>4</sub>. m. (from alc.) 155° (decompn.). W. A. Moore

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

ALPHABETIC INDEX																									
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
<p>PROCESSES AND PROPERTIES OF URINE</p> <p><b>Determination of protein in the urine with chloral hydrate.</b> A. Relek and V. Hutec. <i>Ljudskis Vjesnik Zagreb</i> 1939, No. 4, 7 pp.; <i>Chem. Zentr.</i> 1940, I, 3431 - A new method developed by Nelkovic (U. A. 10, 3315) is described. The urine is diluted with a NaCl soln. of definite concn. until a diln. is reached where the reaction with chloral hydrate takes place in 2-3 min. The amt. of protein is obtained by multiplying the diln. of the urine by a factor.</p> <p>M. G. Moore</p>																									
<p>SYNONYM INDEX</p> <p>1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.</p>																									
<p>SYNONYM INDEX</p> <p>1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.</p>																									

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
BC										A-2									
<p>"Dudine vrole," a sulphur-containing thermal spring at Tubolake Teplice. A. Ruzik and L. Mamo (Arch. Hemijs, 1960, 12, 10-16).--Analytical data are recorded. R. T.</p>																			
ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									